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(72) Inventor: GRASTEIT, Christopher, T.; 99 Randall Street, San Francisco, CA 94131 (US).

(21) International Application Number: PCT/US00/42055

(74) Agent: MAGEN, Burt; Fiesler, Dubb, Meyer & Lovejoy LLP, Suite 400, Four Embarcadero Center, San Francisco, CA 94111-4156 (US).

(22) International Filing Date:
9 November 2000 (09.11.2000)

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW.

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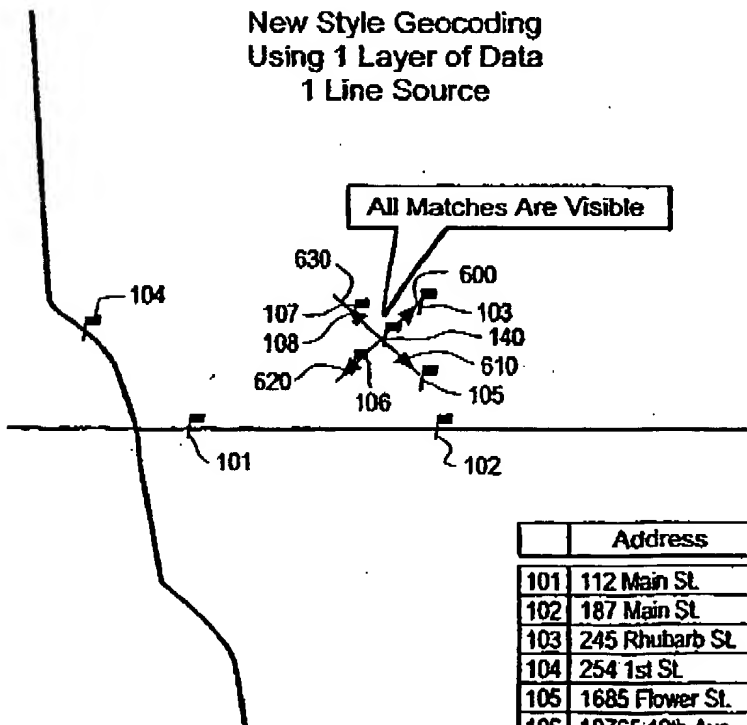
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[Continued on next page]

(54) Title: VIRTUAL STREET ADDRESSING RADIUS

New Style Geocoding
Using 1 Layer of Data
1 Line Source

(57) Abstract: A single geocoded data layer is created by converting centroid related data to a line (600, 610, 620, 630) by adding or subtracting a distance at a predetermined direction from the centroid (140) to derive an endpoint from the centroid (140) defining the line (taking the form of a radial (610) extending from the centroid (140)). The source of the centroid (140) related data is utilized to determine the direction of the line (a first source creates a line in a first direction, a second source creates a line in a second direction, and same sources related to different centroids (140) create lines oriented in a same direction from the different centroids (140)). The single geocoded data layer allows for 1 pass searching of decoded data, and provides a display with more information than a simple match to a point or centroid (140). The radial display may take any form. Unconfirmed locations in the database may be related only to a centroid (140).

WO 01/35192 A3

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US00/42055

A. CLASSIFICATION OF SUBJECT MATTER IPC(7) : GO6P 17/30; GO1C 21/00; GO6T 11/60 US CL : 707/1, 3; 701/ 200, 201, 207, 208, 211; 345/435. According to International Patent Classification (IPC) or to both national classification and IPC																						
B. FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) U.S. : 707/1, 3; 701/ 200, 201, 207, 208, 211; 345/435. Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) Please See Extra Sheet.																						
C. DOCUMENTS CONSIDERED TO BE RELEVANT																						
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.																				
	Please See Continuation of Second Sheet.																					
<input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C. <input type="checkbox"/> See patent family annex.																						
<table border="0"><tr><td colspan="2">Special categories of cited documents:</td></tr><tr><td>"A"</td><td>document defining the general state of the art which is not considered to be of particular relevance</td></tr><tr><td>"E"</td><td>earliest document published on or after the international filing date</td></tr><tr><td>"L"</td><td>document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)</td></tr><tr><td>"O"</td><td>document referring to an oral disclosure, use, exhibition or other means</td></tr><tr><td>"P"</td><td>document published prior to the international filing date but later than the priority date claimed</td></tr><tr><td>"T"</td><td>later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention</td></tr><tr><td>"X"</td><td>document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone</td></tr><tr><td>"Y"</td><td>document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art</td></tr><tr><td>"A"</td><td>document member of the same patent family</td></tr></table>			Special categories of cited documents:		"A"	document defining the general state of the art which is not considered to be of particular relevance	"E"	earliest document published on or after the international filing date	"L"	document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"O"	document referring to an oral disclosure, use, exhibition or other means	"P"	document published prior to the international filing date but later than the priority date claimed	"T"	later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention	"X"	document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone	"Y"	document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art	"A"	document member of the same patent family
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Date of the actual completion of the international search 22 APRIL 2001		Date of mailing of the international search report 04 MAY 2001																				
Name and mailing address of the ISA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231		Authorized officer ELLA COLBERT Peggy Hamod Telephone No. (703) 308-7064																				

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US00/42055

B. FIELDS SEARCHED

Electronic data bases consulted (Name of data base and where practicable terms used):

WEST (All Databases).

Search terms: geocoded database, single layer or one layer database, map, centroid, data match, satellite.

The United States Patent and Trademark Office date stamp
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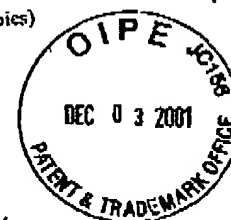
SC/Serial No.: 09/439,550
Inventor: Christopher T. Grasteit
Filed: November 12, 1999
Art Unit: 2177
Title: VIRTUAL STREET ADDRESSING RADIUS

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1. Information Disclosure Statement Under 37 C.F.R. § 1.56 (2 copies)
with cited references and Appendices A and B
 2. Return Receipt Postcard



Mailing Date: November 20, 2001
Attorney Docket No.: ETAK-07735US0

Atty: Brent A. Folsom

Title: VIRTUAL STREET ADDRESSING RADIUS

Inventor: Grastel

Appl No.: 09/439,550

Attorney: Brent A. Folsom

Filing Date: November 12, 1999

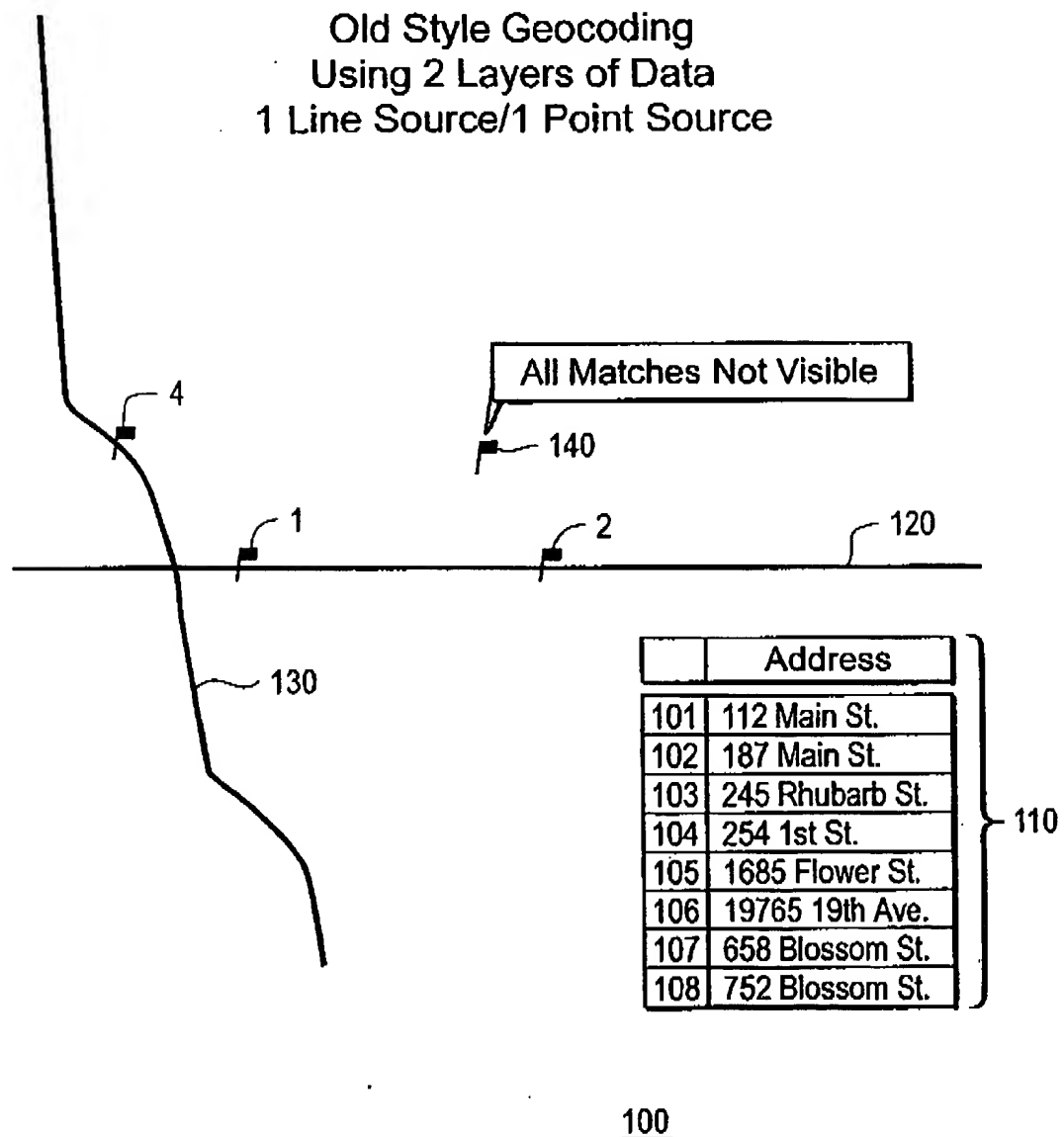
Docket No.: ETAK-0773
Telephone No.: 415-362-3800

FIG. 1

Title: VIRTUAL STREET ADDRESSING RADIUS

Author: Grasteh

J No.: 09/439,550

Attorney: Brent A. Folsom

Filing Date: November 12, 1999

Docket No.: ET. : 735US0

Telephone No.: 415-362-3800

The Address Was Not Found.

The Following Was Found: SAN FRANCISCO, CA 94111

852 Nothere St.	
San Fran	CA
94111	USA

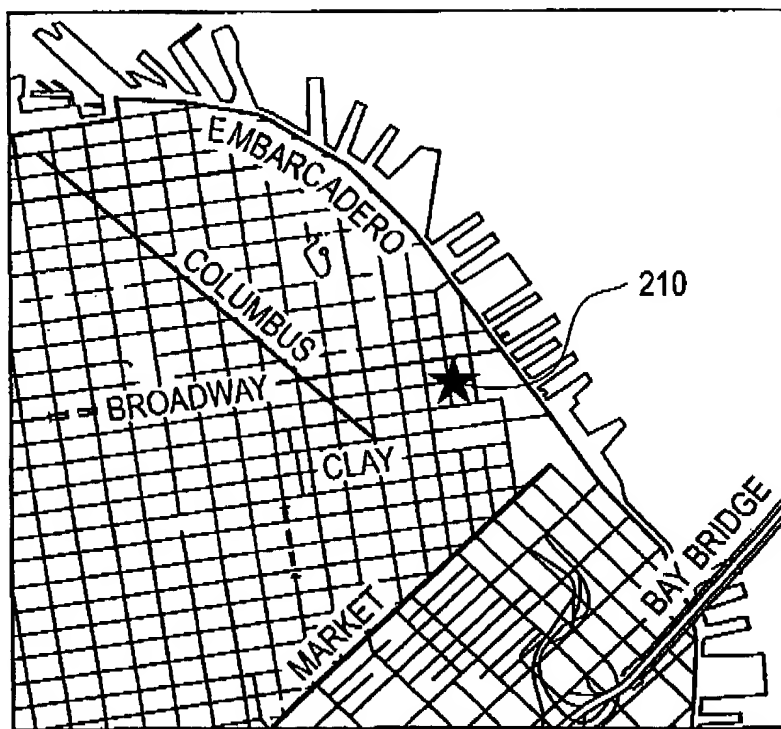


FIG. 2A

Title: VIRTUAL STREET ADDRESSING RADIUS

Author: Grasteit
No.: 09/439,550
Attorney: Brent A. Folsom
Filing Date: November 12, 1999Docket No.: ETS 735US0
Telephone No.: 415-362-3800

The Address Was Not Found.

The Following Was Found: SAN FRANCISCO, CA 94111

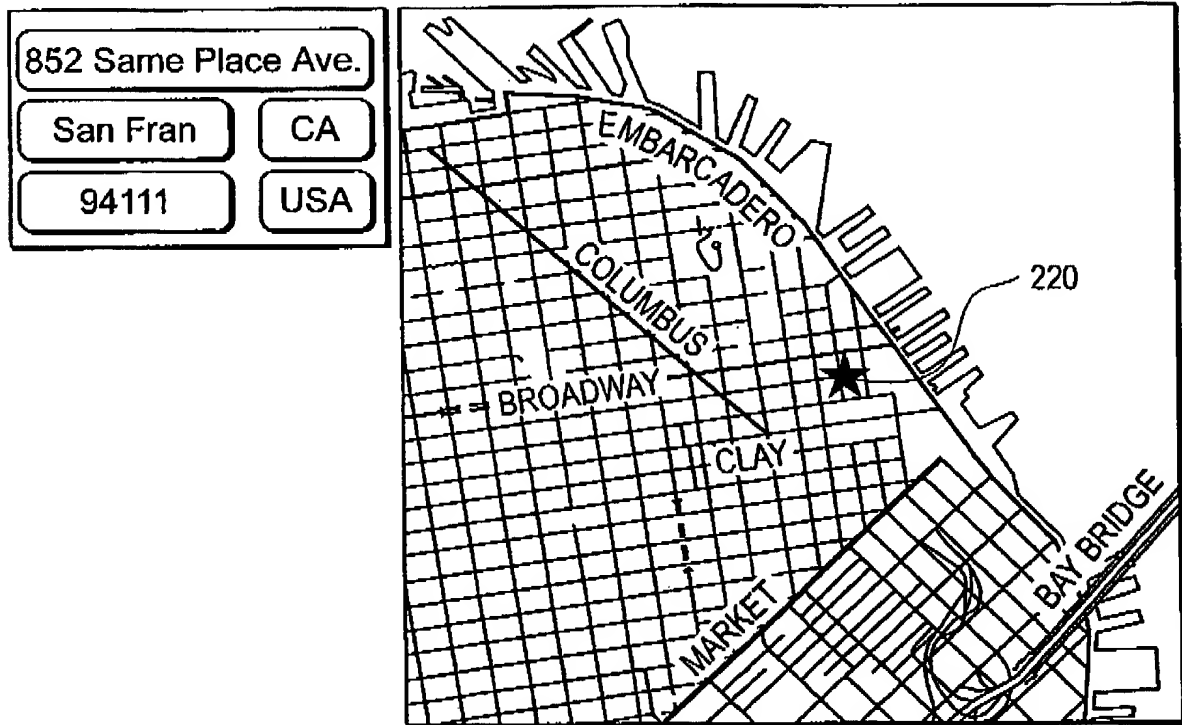


FIG. 2B

Time: VIRTUAL STREET ADDRESSING RADIUS

Inventor: Grascit

A : 09/439,550

Att. : **By: Brent A. Folsom**

Filing Date: November 12, 1999

Docket No.: ETAK. ' USO

Telephone No.: 415- 800

260

120 CLAY ST., SAN FRANCISCO, CA 94111

120 Clay St.	
San Fran	CA
94111	USA

250

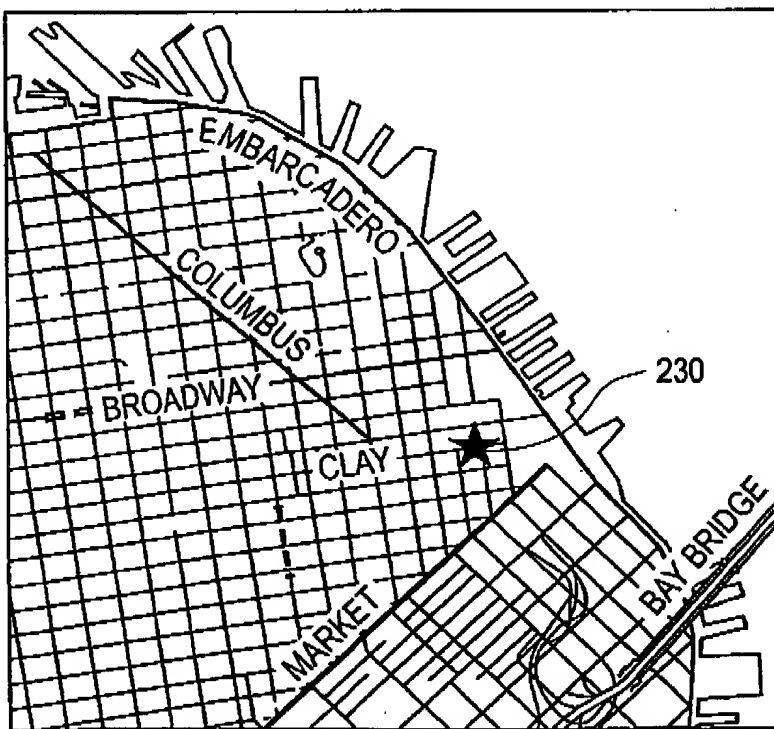


FIG. 2C

Title: VIRTUAL STREET ADDRESSING RADIUS

Inventor: Grastick

Attorney No.: 09/439,550

Attorney: Brent A. Folsom

Filing Date: November 12, 1999

Docket No.: ET. 7735US0

Telephone No.: 415-362-3800

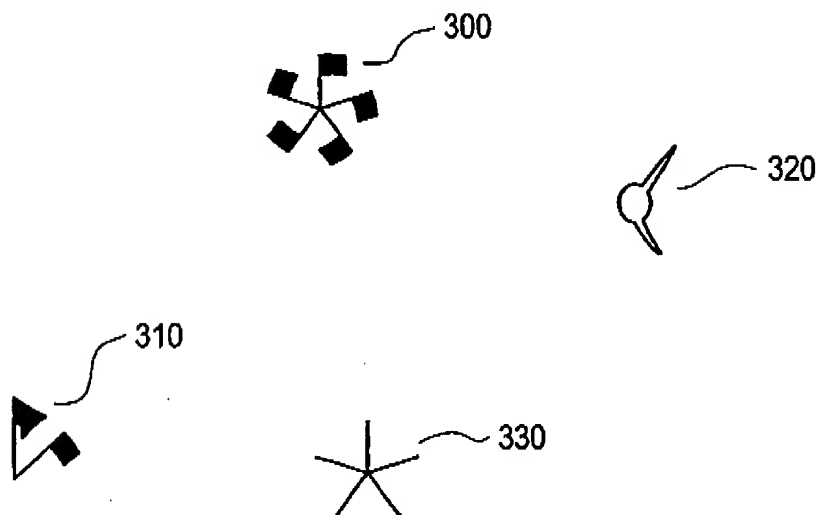


FIG. 3

Title: VIRTUAL STREET ADDRESSING RADIUS

Inventor: Grasteit

Appl No.: 09/439,550

Attorney: Brent A. Folsom

Filing Date: November 12, 1999

Docket No.: E-07735US0

Telephone No.: 415-362-3800

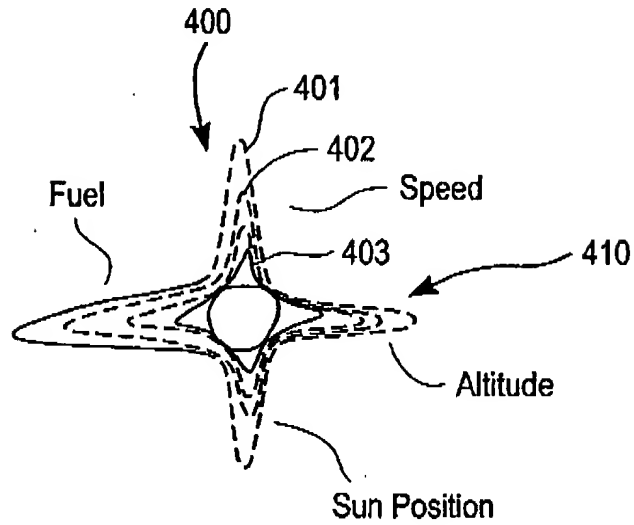


FIG. 4

Title: VIRTUAL STREET ADDRESSING RADIUS

Inventor: Grascit

Appl No.: 09/439,550

Attorney: Brent A. Folsom

Filing Date: November 12, 1999

Docket No.: AK-07735US0

Telephone No.: 415-362-3800

<p>P - Public Bldg.</p> <p>- Unknown</p> <p>Q - Private Bldg.</p>	<p>- In Bldg.</p> <p>b - Nearby Lot</p> <p>d - Street Pkg.</p> <p>dl - Nearby Lot & Street Pkg.</p>
<p>No Parking</p> <p>— - Street Parking</p> <p>□ - Free Parking</p> <p>□ - \$ Parking</p>	<p>- None</p> <p>□ - In Bldg.</p> <p>□ - Same Block</p>

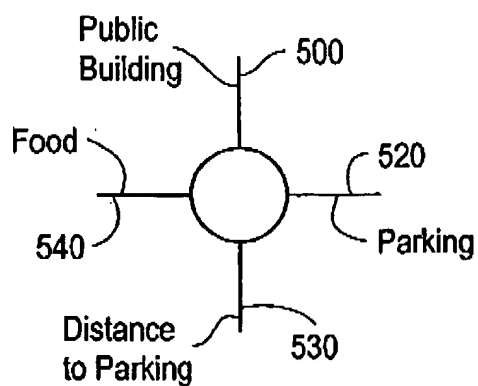


FIG. 5

Title: VIRTUAL STREET ADDRESSING RADIUS

Author: Grasteit

Appl No.: 09/439,550

Attorney: Brent A. Folsom

Filing Date: November 12, 1999

Docket No.: ETA.../7735USO

Telephone No.: 415-362-3800

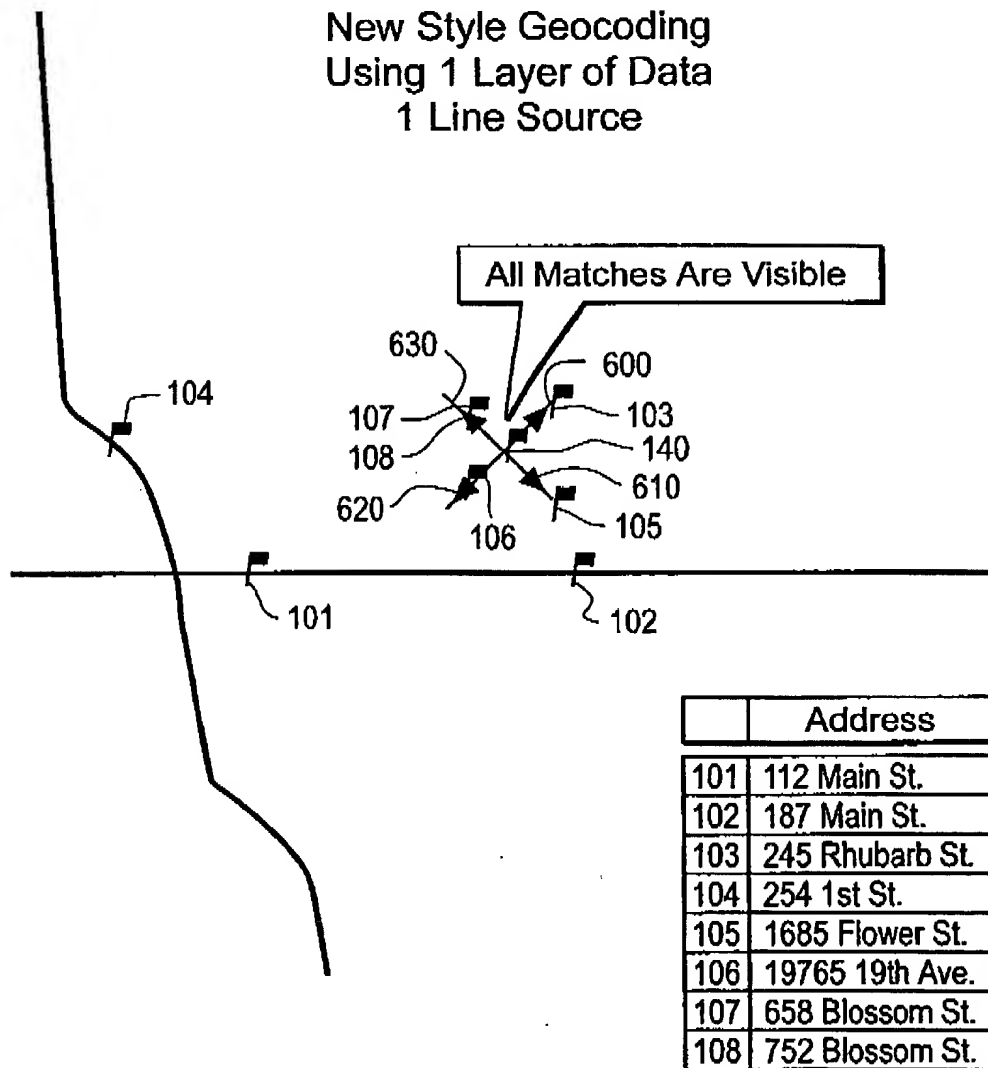


FIG. 6

Title: VIRTUAL STREET ADDRESSING RADIUS

Inventor: Gracieit

Appl No.: 09/439,550

Attorney: Brent A. Folsom

Filing Date: November 12, 1999

Docket No.: EIAK-07735US0

Telephone No.: 415-362-3800

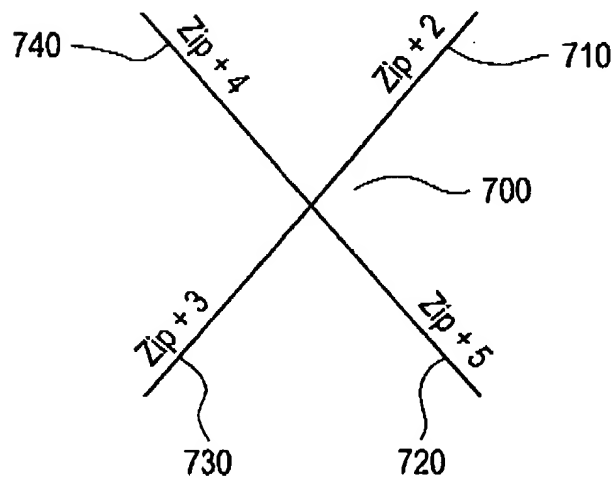


FIG. 7

Title: VIRTUAL STREET ADDRESSING RADIUS

Inventor: Grasteit

Appl No.: 09/439,550

Attorney: Brent A. Folsom

Filing Date: November 12, 1999

Docket No.: BK-07735US0

Telephone No.: 415-362-3800

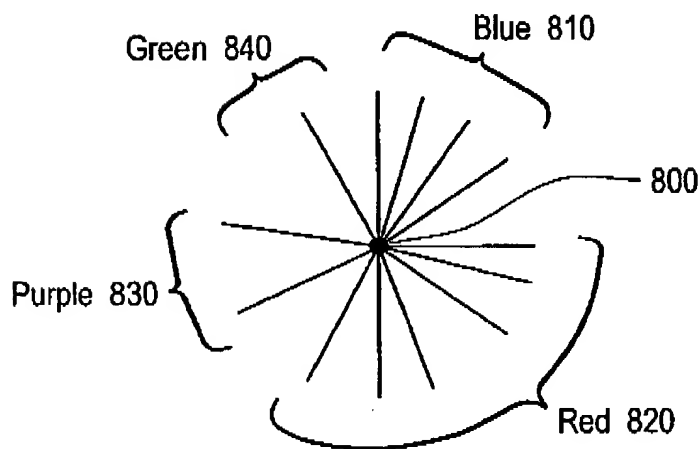


FIG. 8

Drawing Sheet 11 of 12
VIRTUAL STREET ADDRESSING RADIUS
Attorney: Grastett
Appl No.: 09/439,550
Attorney: Brent A. Folsom
Filing Date: November 12, 1999

Docket No.: ETAK-07735US0
Telephone No.: 415-362-3800

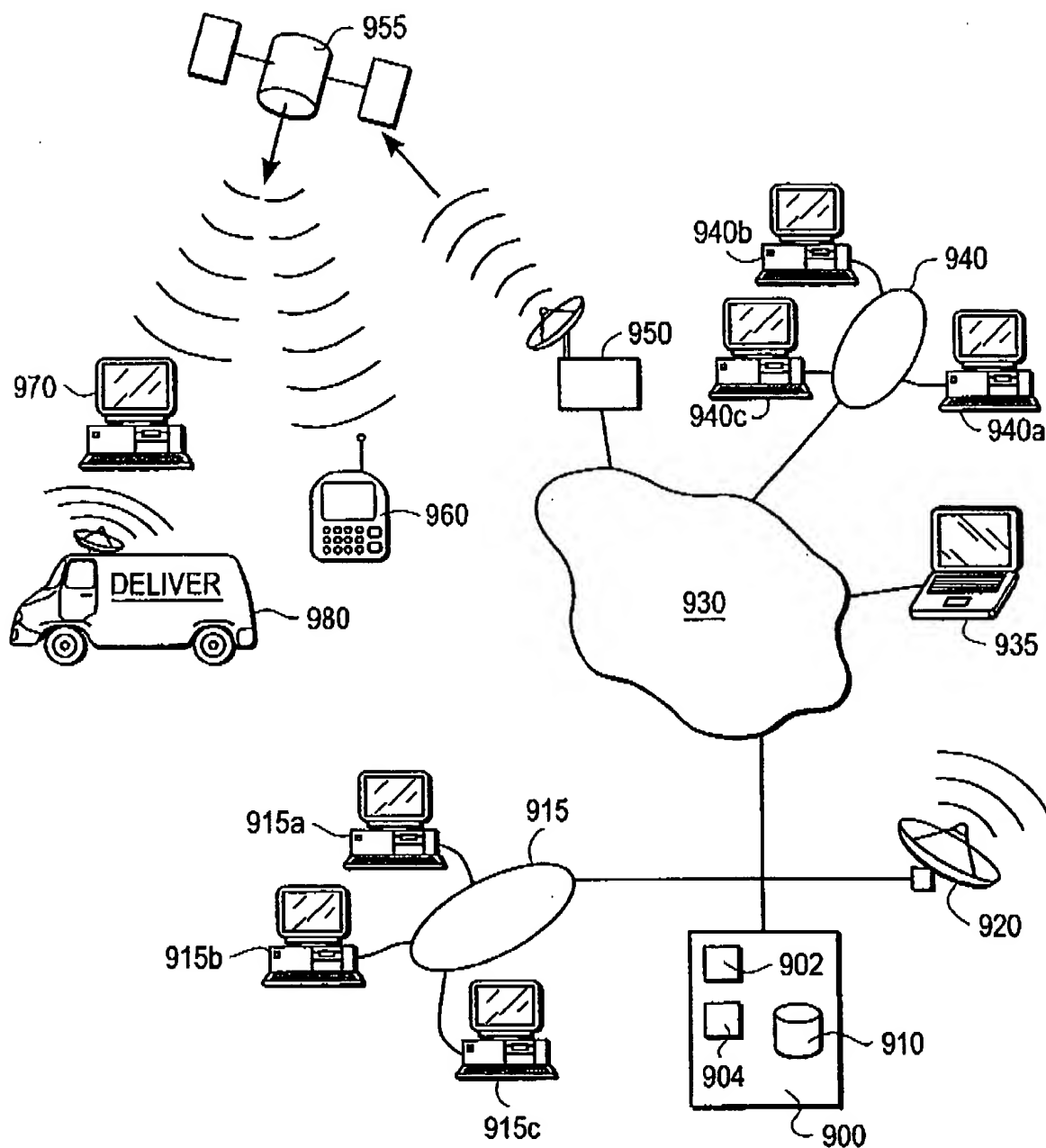


FIG. 9

Title: VIRTUAL STREET ADDRESSING RADIUS

Inventor: Grasteit

Appl No.: 09/439,550

Attorney: Brent A. Folsom

Filing Date: November 12, 1999

Docket No.: ETAC-07735US0

Telephone No.: 415-362-3800

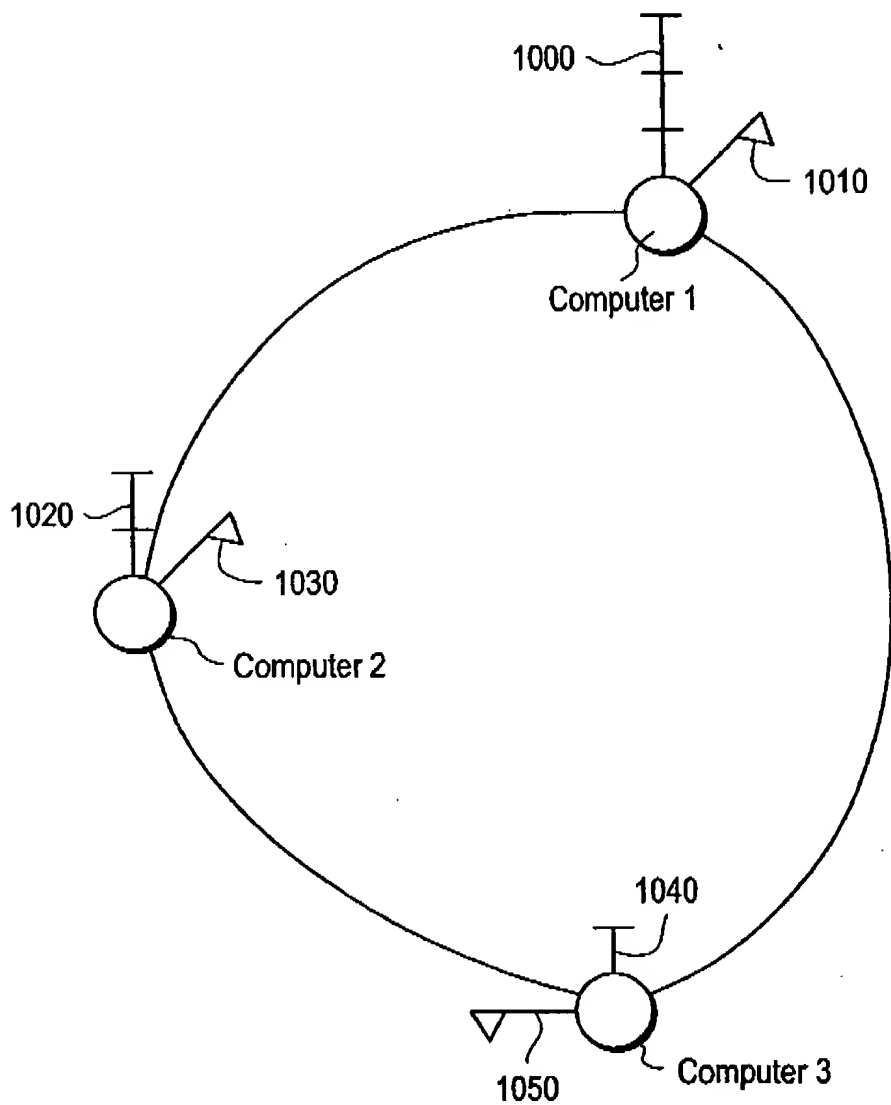


FIG. 10